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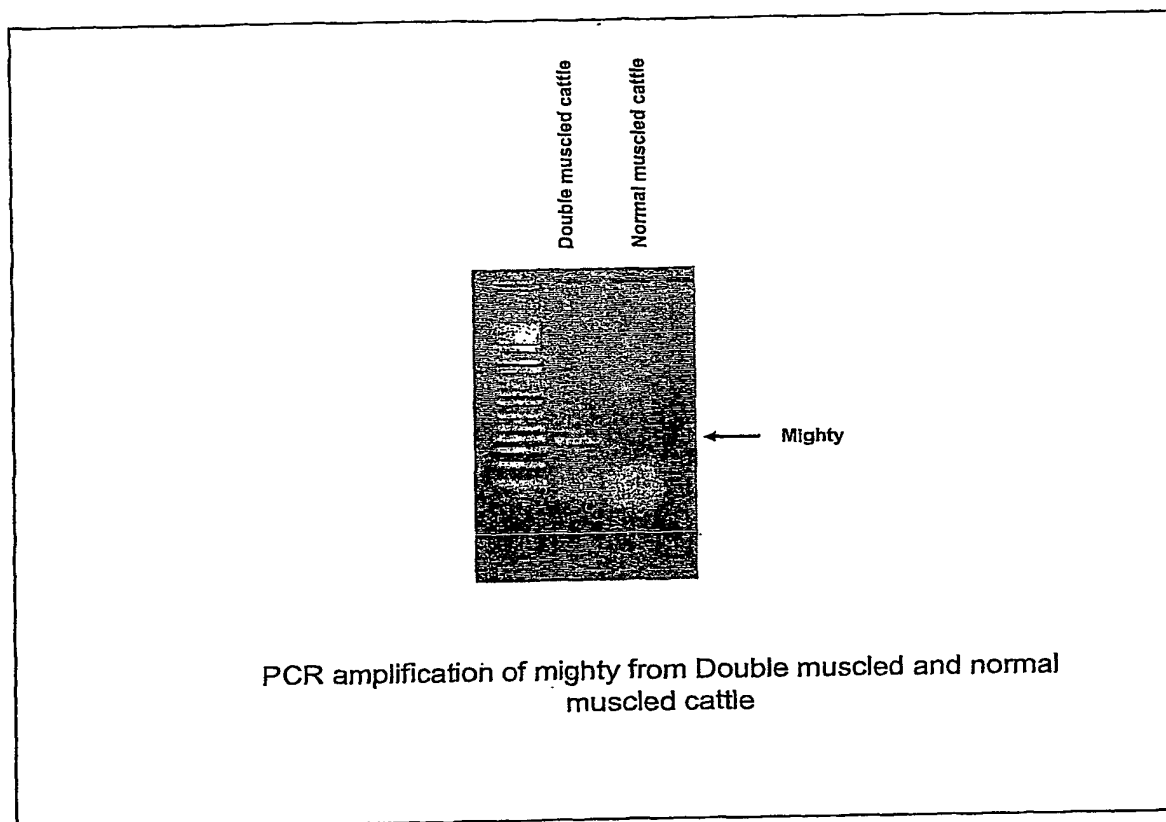
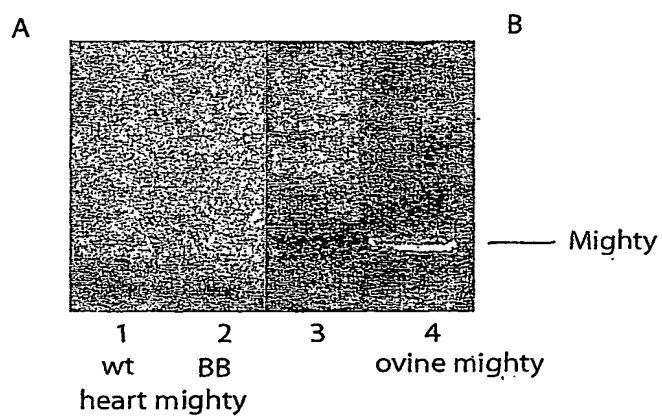


FIGURE 1.

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Lane 1 PCR amplification of mighty from wild type bovine heart
Lane 2 PCR amplification of mighty from Belgian Blue bovine heart
Lane 3 1 kb plus DNA ladder
Lane 4 PCR amplification of mighty from ovine skeletal muscle

FIGURE 2

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CCACATTCACTGTGCAAGTCGTGGGGAAATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTAAAGGATCACAGAGTGACTACCAAAGCACGTAGCAAAACCCTACTAAGAGAGGTGTGTTTAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACTTTGGATCTGTTTATACCACAAGAAAAC
 AATTTACTTGATGCTCTTAGGTCCCTTTAAAAAATAGGATTCGGAAGTGGCTTTTTCATGTCTTGGCTTTTA
 TTGAACATAGAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTAGATCATTGTTTTCCTAATAAAGTCAT
 GACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCCTCTGGTGAAGTGGTTCC
 TATTGCTGCTTATTCATCATGACTATGGTTTTCATTTTTCTTTAGCCTTCAAGAAGCTCAGAACTGAATTTTAA
 TTCAGTCATTACCAAGCAATTAATTCGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTATTCTAGATT
 TTAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAATTAACATGGGTAATGTGCCTA
 GGGAGGCTTGAATCCCAATATGGCAAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGCTTATATT
 TACAGAAATAAATGTGAAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTC
 AGAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAG
 TGCCTTTATTGTCTAACCCCAAGTGTGTTGAAGTACTGTGACGCAATTAGAAATGAGTAT
 CTAATAATTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCCA
 CTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATGATGTATTGGA
 AAGCACTGGAGTTACTCCCAGGAAAATTACAACCAGAGTTCCTTAAAGCAGAACCTCCCTGTTTTCTATTCA
 TTTGCTGAATATCAAAGCATTTTCCAGCCAACAGTACGGCAATTGACCCGAGGAAGAACCAG
 TCTGAGTTGCCAAGTCGGATGAGGAAGCCAACTGGGAAGTTCCCTAACACCCTGGTA
 TCACCTTGGTTAGACAGTTTAAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTGGTTTTTTTTTTTCTTTTA
 ATCCTTTTTTGCCTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCATAAGGCAAAATACATT
 CATTTGTAACACACCTCCCCTTCCAATTTTGCCAGGGTTTCGTGGATTAAATAAAGTCTATCC
 TTAGATAACCCGTTATGTTTGTGAAGATTTCCTGGGACTCAAGACAAAATCCTTTGATAACCCTTTAGAAAT
 TCTTTTTATCGGTACGCGGCCAAGGGAACCCGGGTCTCCAGGGTCTCGCCCGCGCCCGAGG
 CCCCTGCCGCGCAGGTGCGAAAAGACCTCCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGCCCTGGGAG
 GGGCGGGGGCGGGGGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCCTACTTCTTCCGAGGGGGCG
 CCATGGGCCGAGCCAGGCTCGCGGGCCTCGGATTCGCTTTTCCGACTCTTCCCTCTGCGGGCGG
 GGGGCACGCCCGTGACGTCACAGGAGGGGGGCGAGCGGGCTGCCGGGTGCCGAGGGCGCCATTGGAGCCG
 GCTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC

Various transcription factor binding sites:

Ebox

AP-1

AP-1

E4BP4

GC box

E2F

FIGURE 3A

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CCACATTCACTGTGCAAGT**CGTGGGGA**AATACAGATGAATAAAGGCTTCCTTGTTATTCTCAAGGAATGTATG
 GTTTTGAAGCACAGTTAGACATATATTCAAATTACAGCTTCCTCCTTTAAACACTAATATTCCAAGGCACAC
 TCAATGTTTTAAAGGATCACAGAGTGA~~CTACCAAAGCACGTAGCAAACCC~~TAAGAGAGGTGTGTTTAAA
 ATGACTACCCAAGGGACATACTTTTCAAGTCTTCTAATCGTTCACTTTGGATCTGTTTAT**AGCAGA**AAGAAA
 ACAATTTACTTGATGCTCTTAGGTCCCCTTAAAAAATAACCATCGTGAAGTGGCTTTTCATGTCCTTGGCCTTT
 TATTGAACATAGAAAACAGCCATGCAAGCGGTCTTAAAGGCTTTATTACATCATTGTTTCCTAATAAAGTCATG
 ACAGTCTACCTTTGGAATTAAAGTGATACACAAAATGATGGTCTGTGTCTCTGGTGAAGTGGTTCCATT**CAG**
~~ATAACACCTATT~~~~CAT~~CATGACTATGGTTTCATTTTTCTTTAGCCTTCAAGAAGCTCAGAAGTGAATTTTAAAT
 TCAGTCATTTACCACCAAGATAATTGTGAGTTTTTTTTTTTTTAAAAAACTCTAATGTTTTATTTCTAGATTT
 TAGTTTAAACCACGTTACATCTATATTGACAATAAATGTGCTAAAATAAACTTAACATGGGTAATGTGCCTAG
 GGAGGCTTGAATCCCAATATGGCAAACAAACAGAAAACCAGCAATTTGGTATGCTGTGCTGTCTTATATTTT
 ACAGAAATAAATGTGAAAGTATATGACCTATGTTATGATCTTTAAAGAGTTTGTAGAAACGGAAGAGGACTCA
 GAGAAAAGCAACCAAAACGAACAGGAGGAGAAGGAAGAAGAGGCGGAGAAGGAGGAGGAAGATTGGAGATAGT
 ATGCCTTTTATTGTCTA**ACCCCA**AGTGTGTTGAAGTACTGTGACAGCCATCTTGGCAATTAGAAATGAGTA
 TCTAAATTTGGACTGTTCTAGAAAAATCTGTTACAGAGATAATGTTAAAGCCAGATTACAGGAATCACAGCC
 ACTAATATACAAATAATTACAGAAAGGCTTTGAATGTGGAGGTGTTGTTCTGATGACTCTATTGATGTATTTG
 AAAGCACTGGAGTTACT**CCCCAGG**AAAATTACAACCAGAGTTCCTAAAGCAGAACCTCCCTGTTTTCTATTTC
 ATTTGCTGAATATCAAAAGCATTTTCCAGCCAACAGTACGGCAGAGAATCTCGATTGACCCGAGGAAGAACCA
 GTCTGAGTTGCCAAGTCGGATGAGGAA**GCCAACTGCC**AAATCAGCTATC**AGGGGAAGTTCCTA**ACACCCTGG
 TATCACTTGGTTAGACAGTTTAAAGCCAGTGAGTTTTCTGGTAGGATTGTTTTTTTGGTTTTTTTTTTTTTCTTTT
 TAATCCTTTTTTTCGTAACACATATCCATTTAGTGATCCGATTAATGGCCGGGTCATCTAT**CCCCAAA**ATACA
 TTCATTTGTAACACACCT**CCCCTT**CCAATTTTGGCCATGATTGCACAGGGTTCGTGGATTAAATAAAGTCTAT
 CCTTAGATAACCCGGTTATGTTTGTGAAGATTTCTTGGGACTCAAGACAAAATCCTTTGATAACCCTTTAGAA
 TCACCTCTTTTATCGGTCACGCGGCCAAGGGAAACCCGGGTCTCCAGGGTCTCTCCCA**TCCCCCGCCCCCGAG**
 GCCCTGCGC**CGCAGGTGCG**AAAGACCTCCAGGCCACTCCGGCAGAGAGCGTGAAGGGGGGGGCCCTGGGA
 GGGGCGGGGGCGGGGGTGTGCTAGGCGACCACGCTCTCCGCCAGACCGGCCTACTTCTTCCGACGGGGCGG
 CCATGGGCCGAGCCCAGGCTCGCGGGCCTCCCGGATCGGCCCTTTTCCGACT**CTTCTCCCTCTGCGGGCGGT**
~~GGCGCACGCCCGTGACGTACAGGAGGCGGGGCCAGCGCGGCTGCCGGGTGECGGAGGGGCCATTGGAGCGG~~
~~CTTGGCTTGGGAGCCGTAGCTGAAGAGTTGGATC~~

Various transcription factor binding sites:

MZF1

AML-1A

Sp1

E47

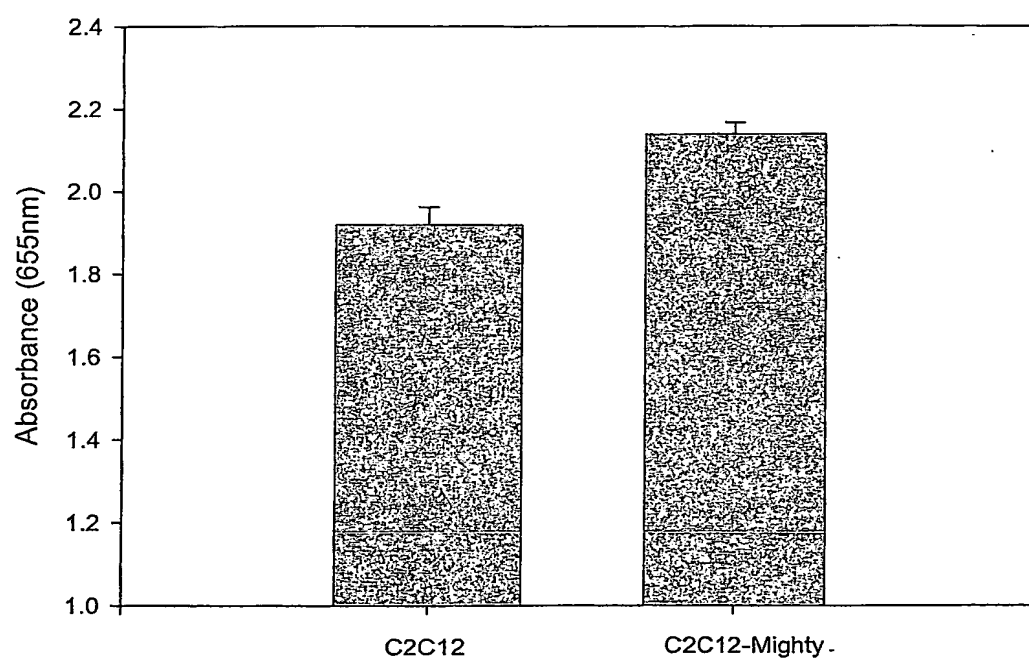
MyoD

NF-kap

FIGURE 3B

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C2C12- Mouse Mighty Clone Proliferation Assay
72 hrs Proliferation

**FIGURE 4**

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Mighty over expressing
C2 Myotubes



Control C2 Myotubes

FIGURE 5

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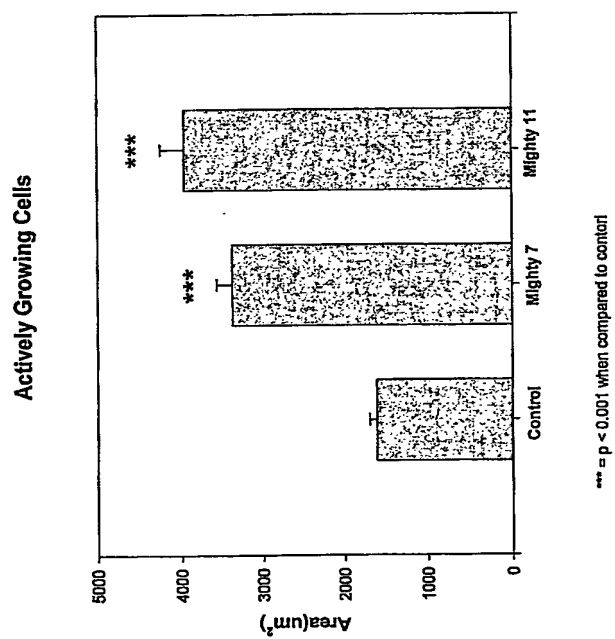


FIGURE 6A

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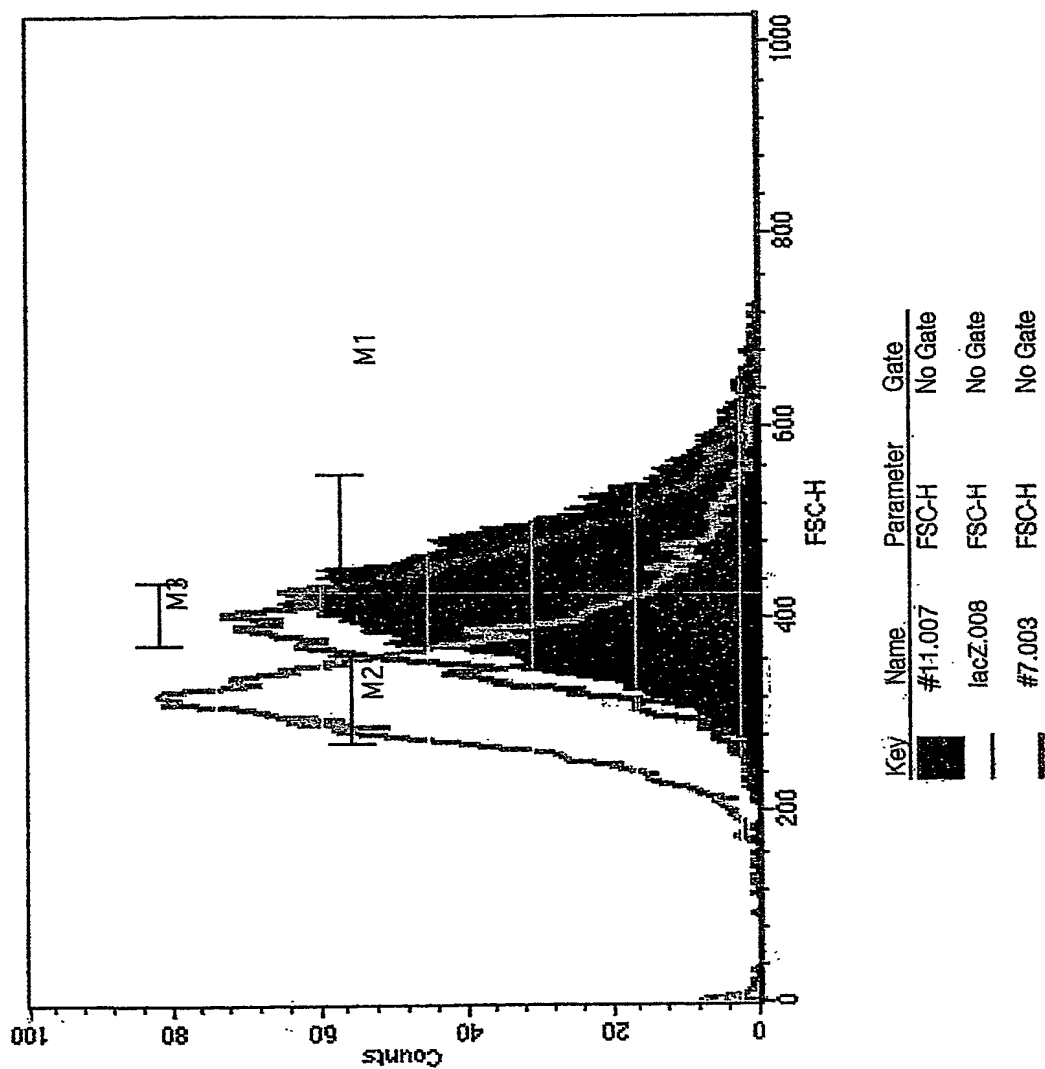
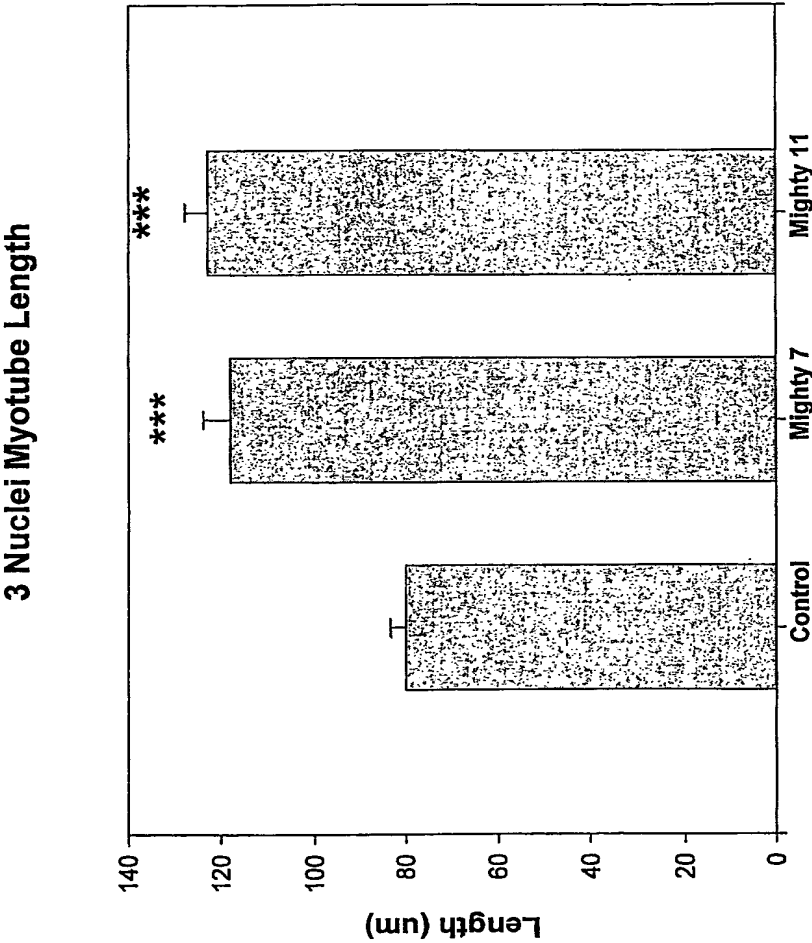


FIGURE 6B

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*** = p < 0.001 when compared to control

FIGURE 6C

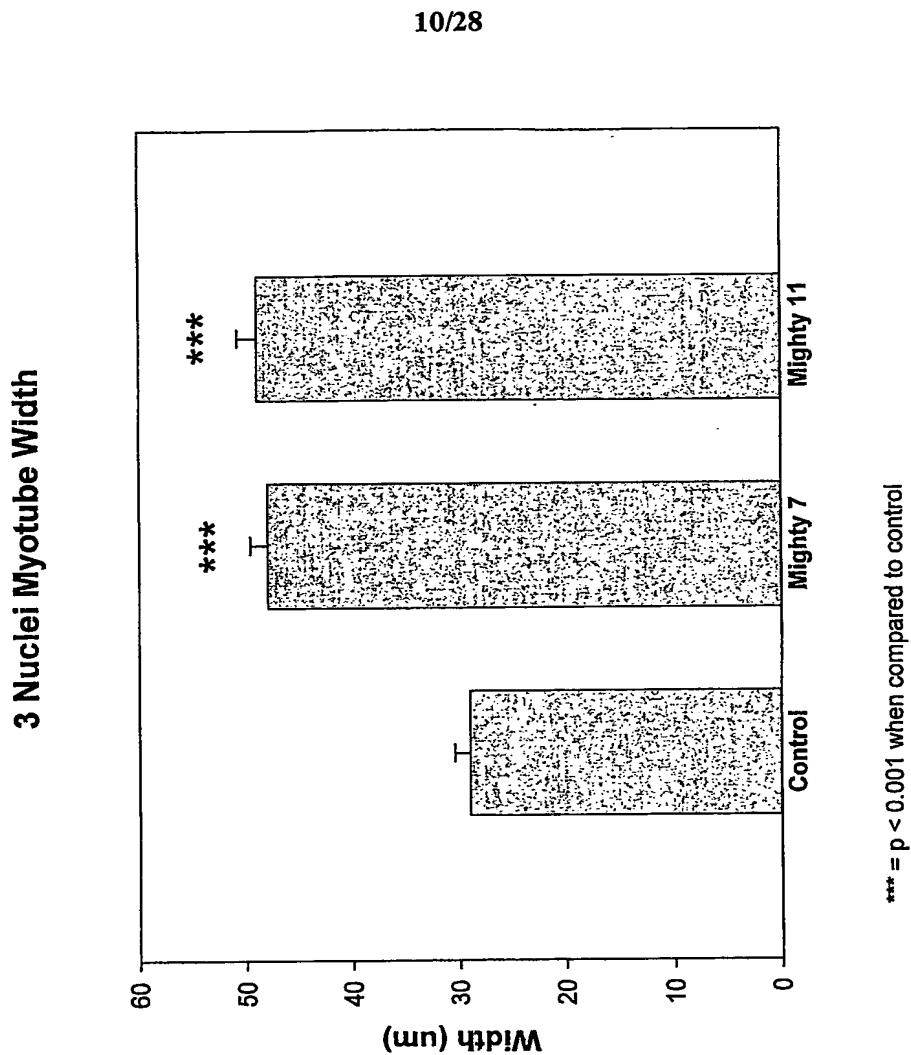


FIGURE 6D

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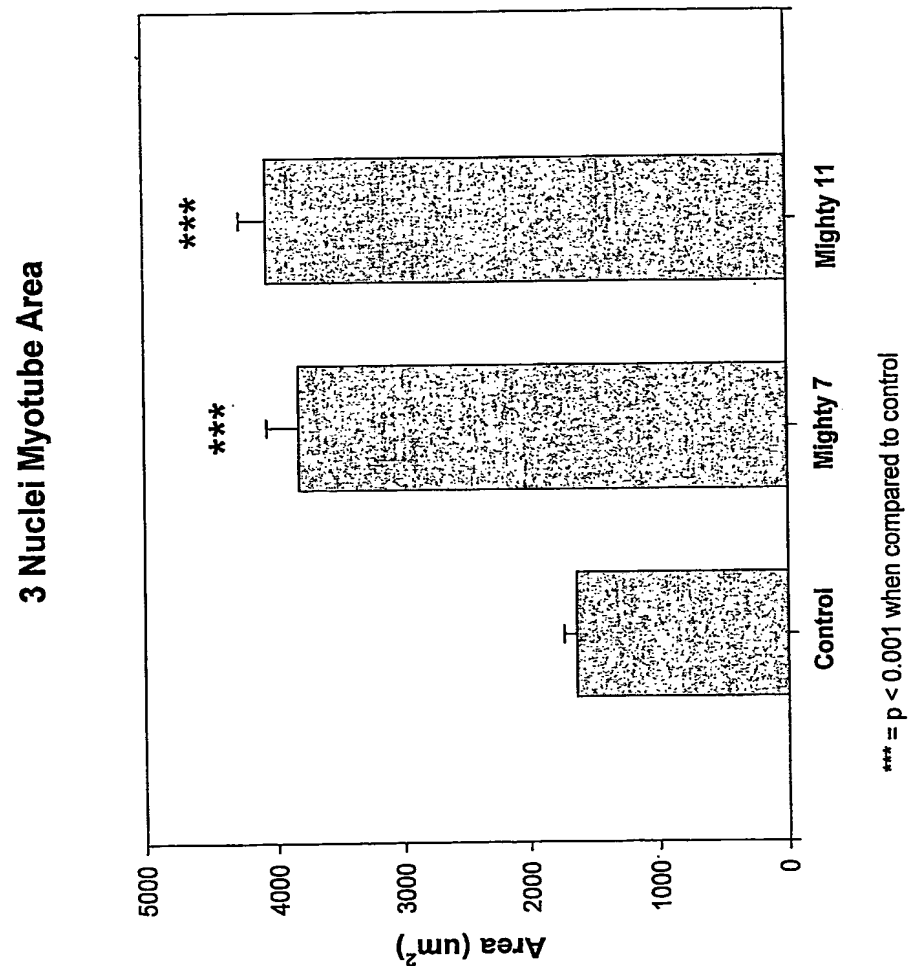
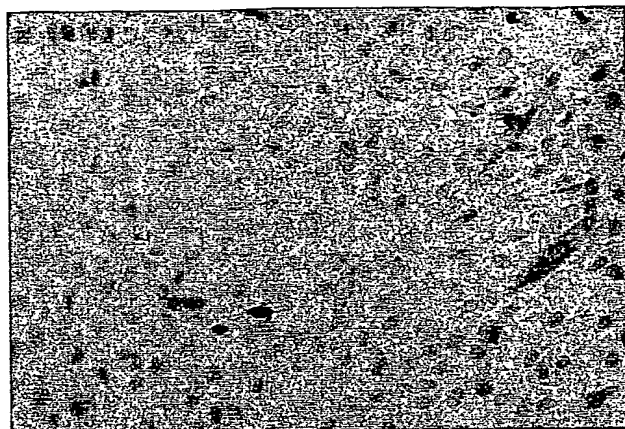
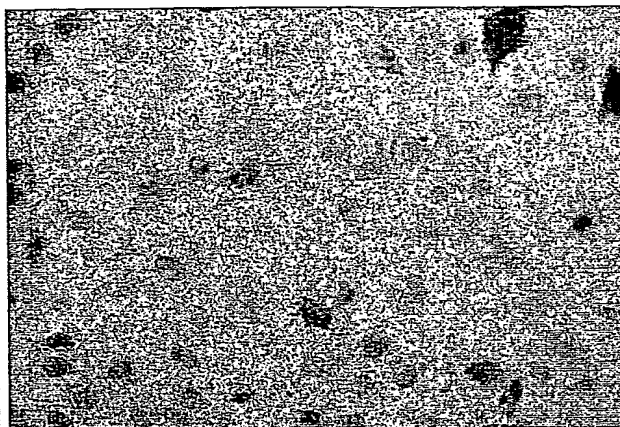


FIGURE 6E

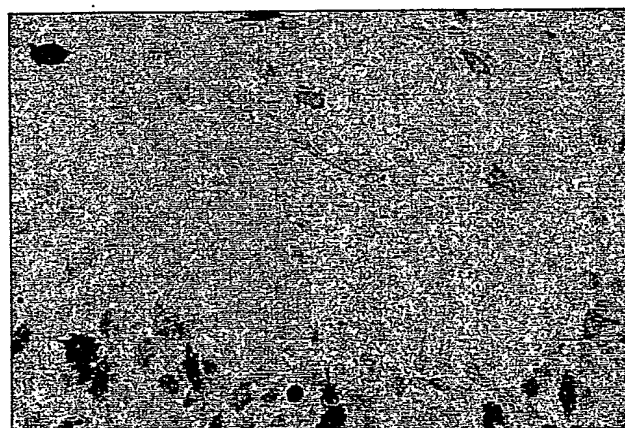
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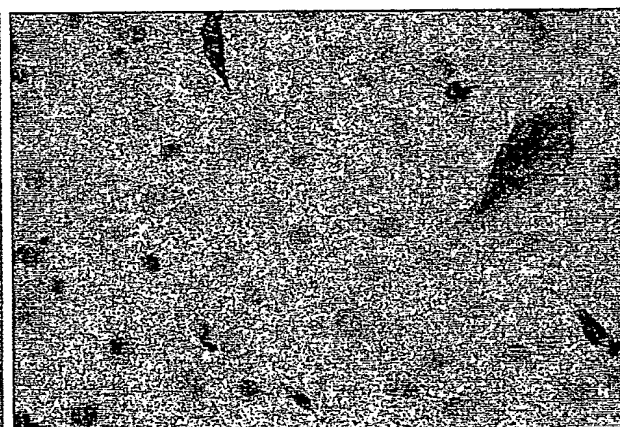
C2C12 - 48 hours differentiation



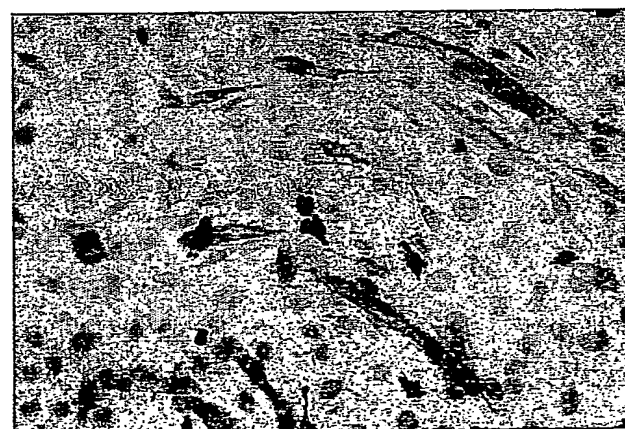
Clone 11 - 48 hours differentiation



C2C12 - 60 hours differentiation



Clone 11 - 60 hours differentiation



C2C12 - 72 hours differentiation



Clone 11 - 72 hours differentiation

FIGURE 7A

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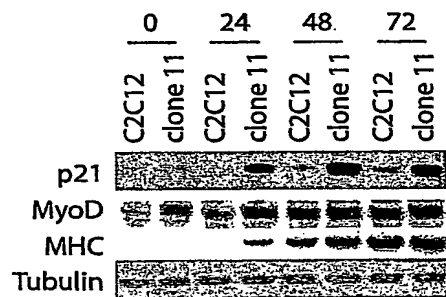
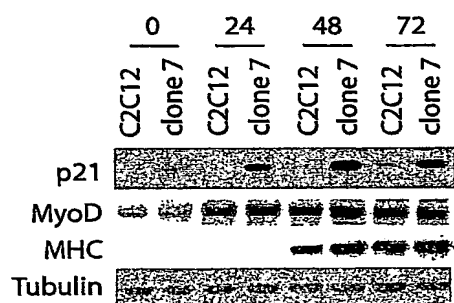


FIGURE 7B

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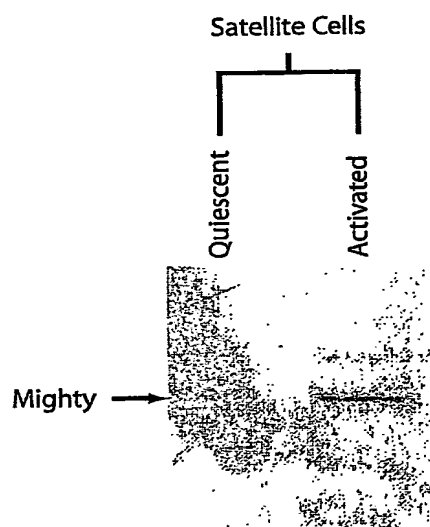


FIGURE 8

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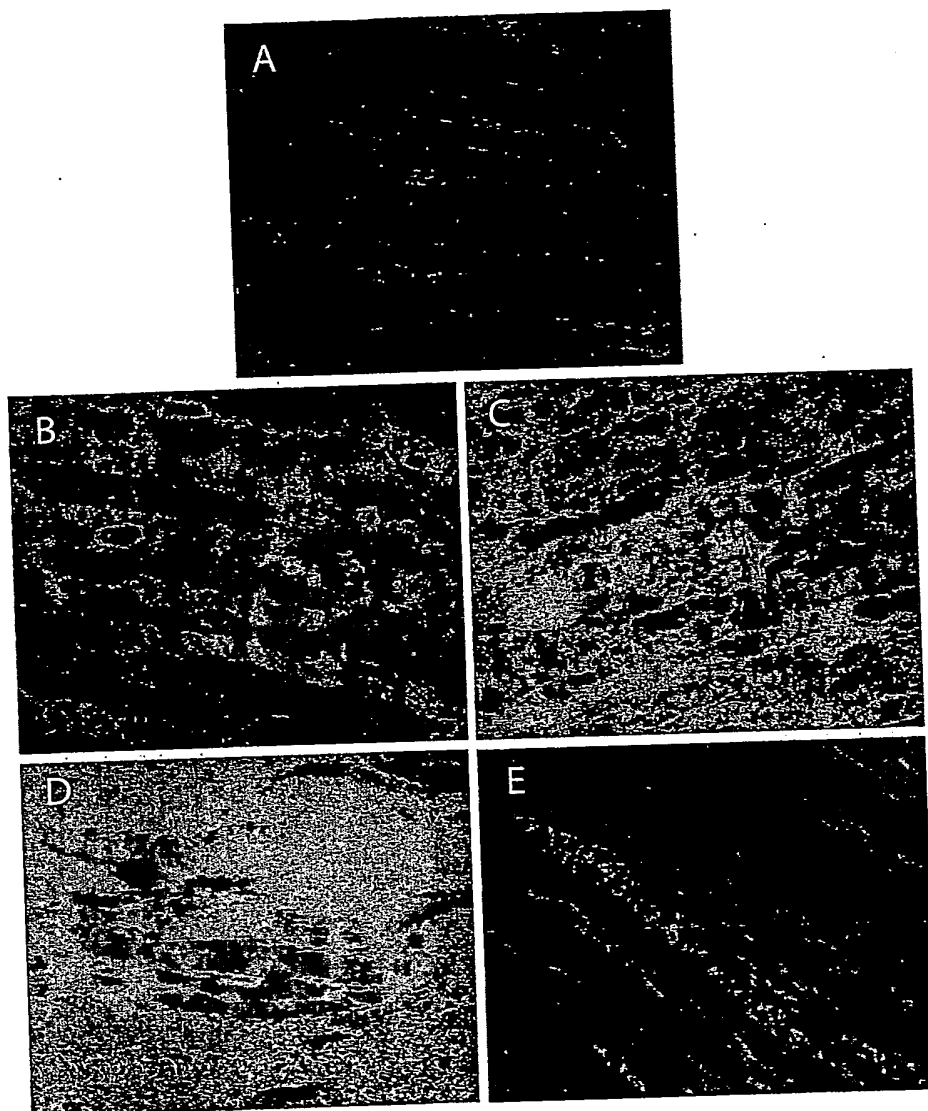


FIGURE 9

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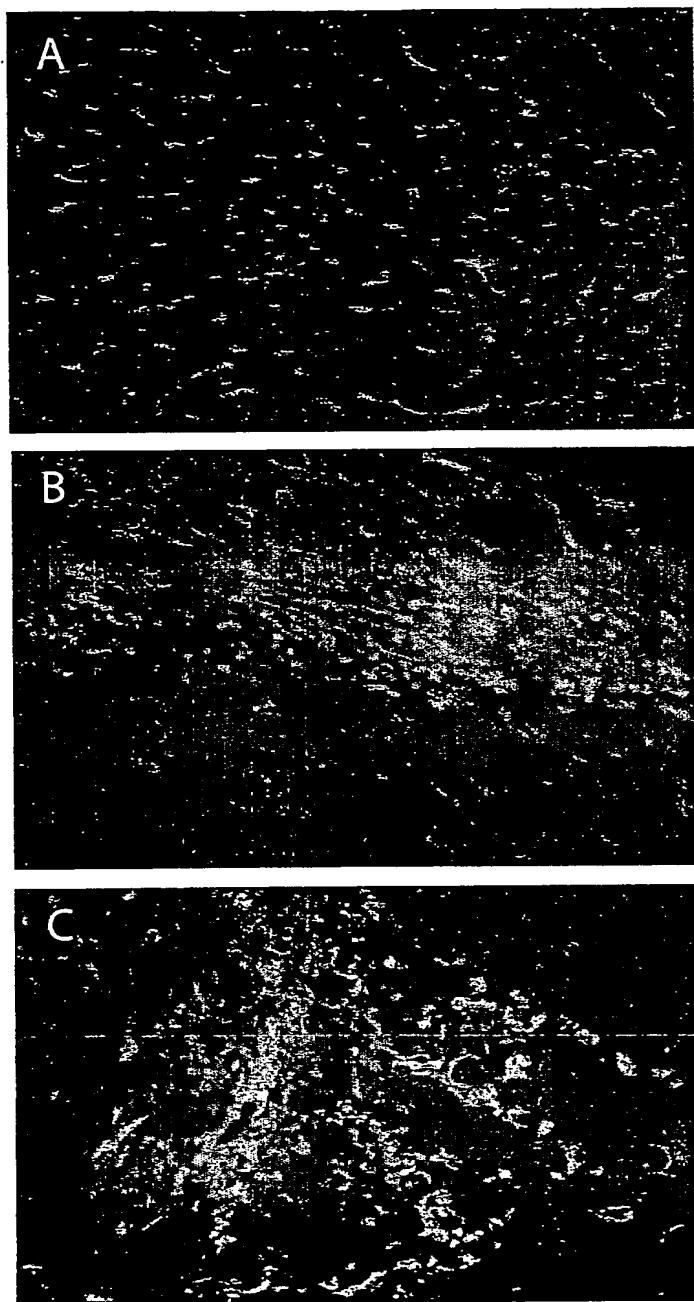


FIGURE 10

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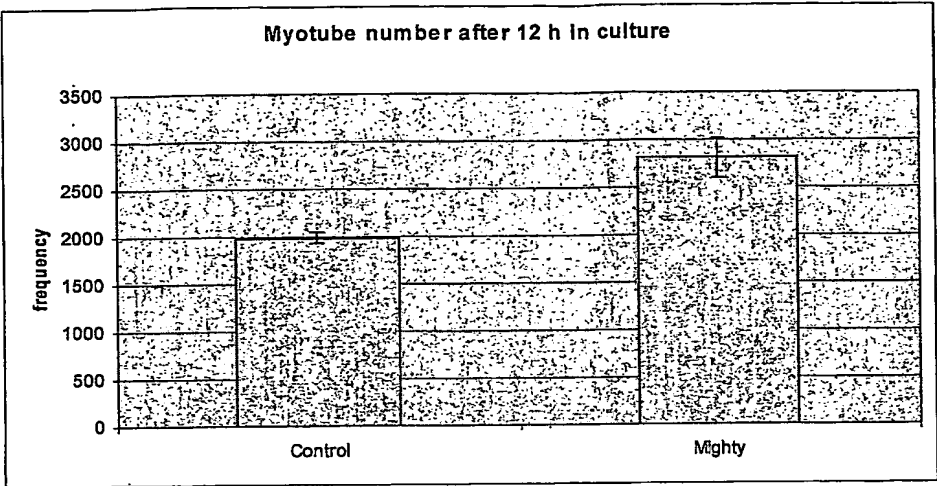


FIGURE 11

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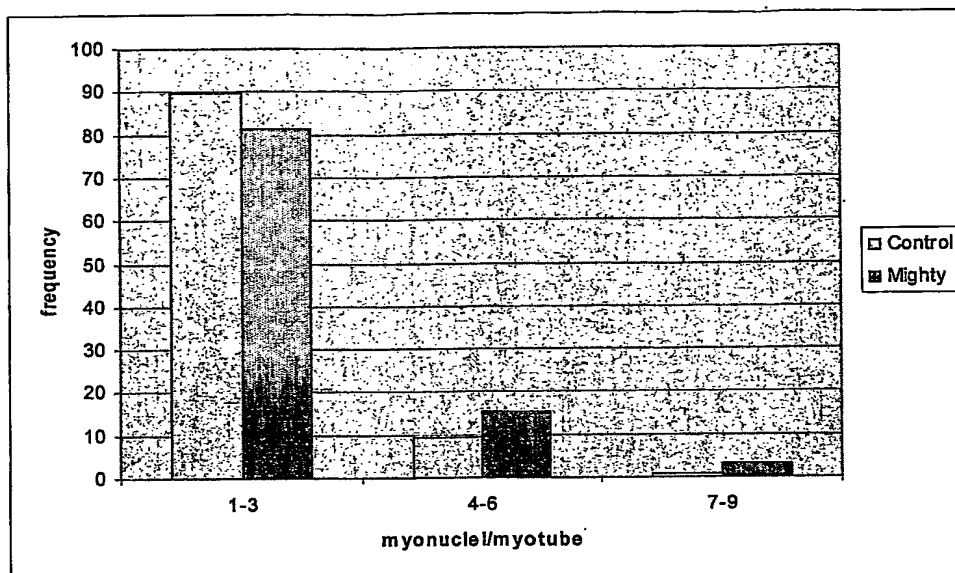


FIGURE 12A

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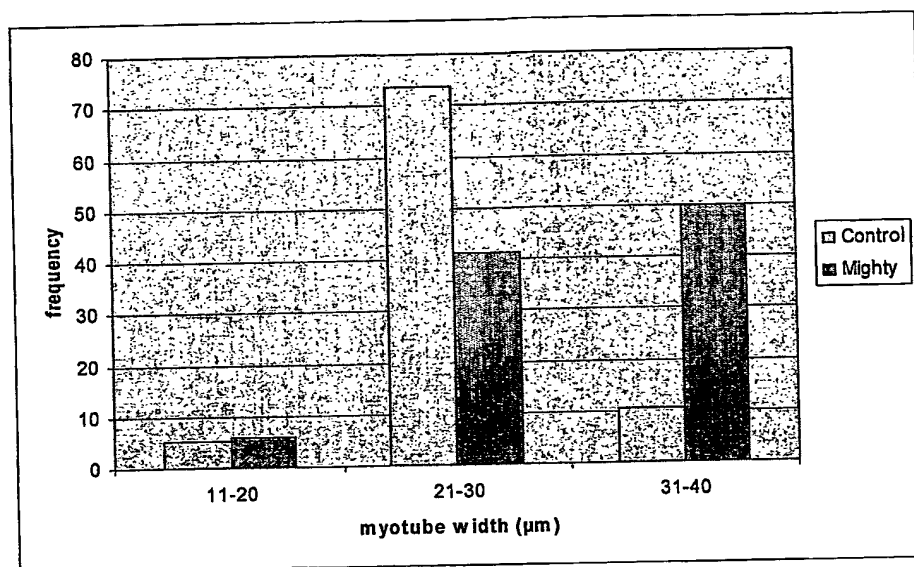
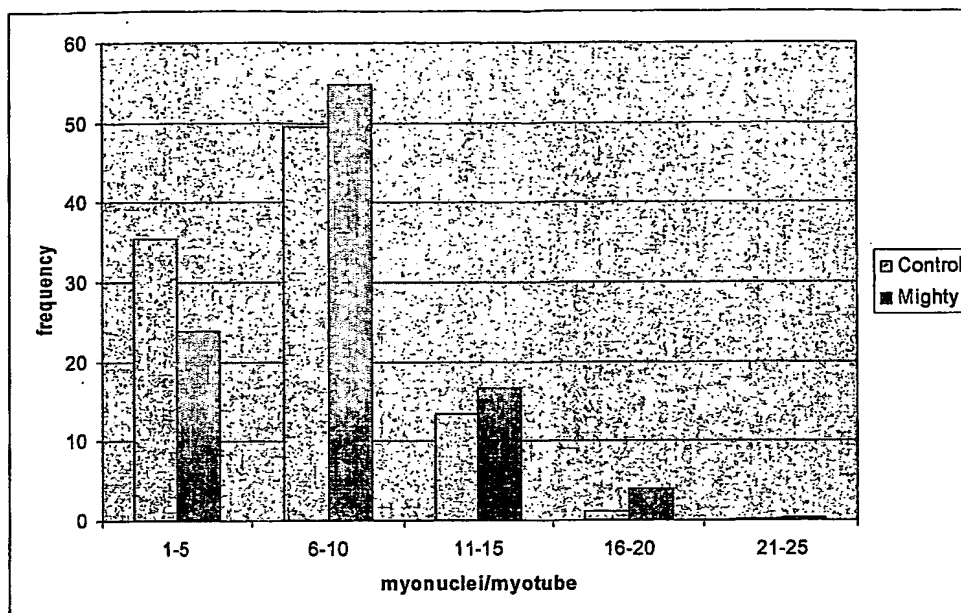
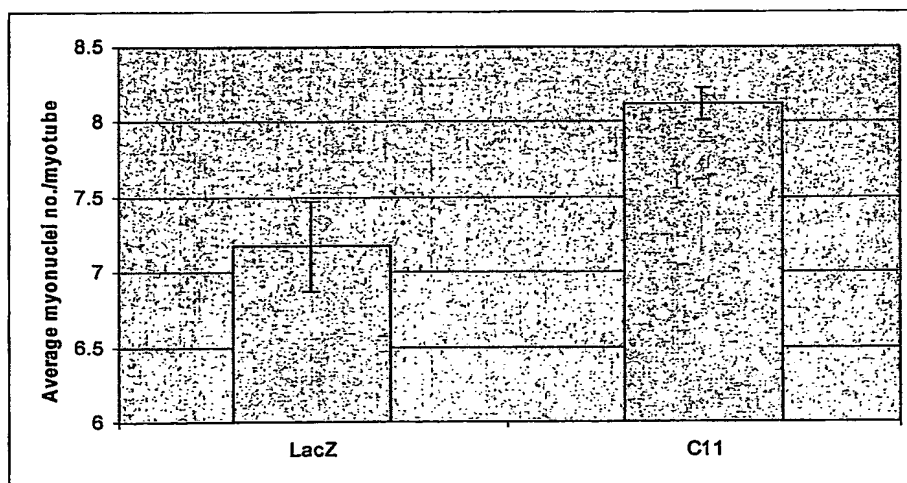


FIGURE 12B

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A**B****FIGURE 13**

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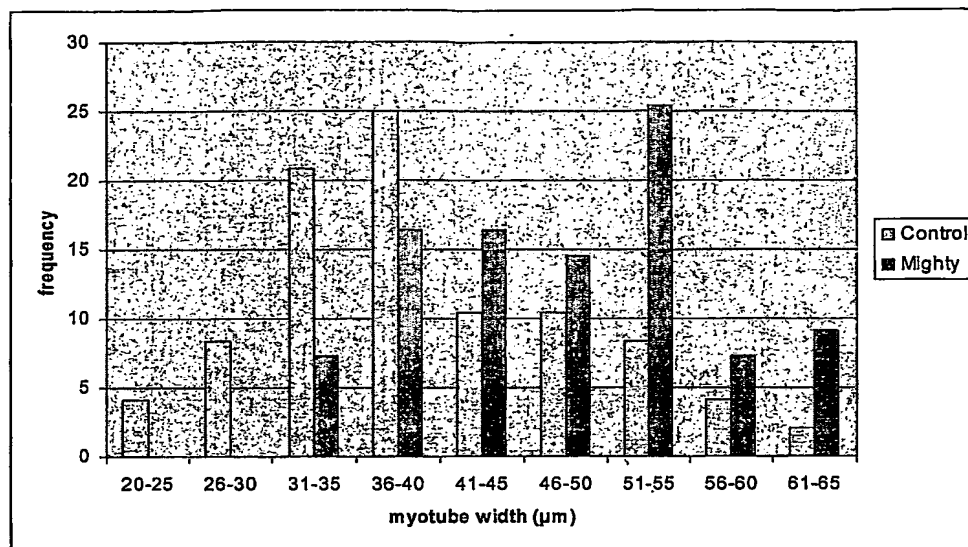


FIGURE 14

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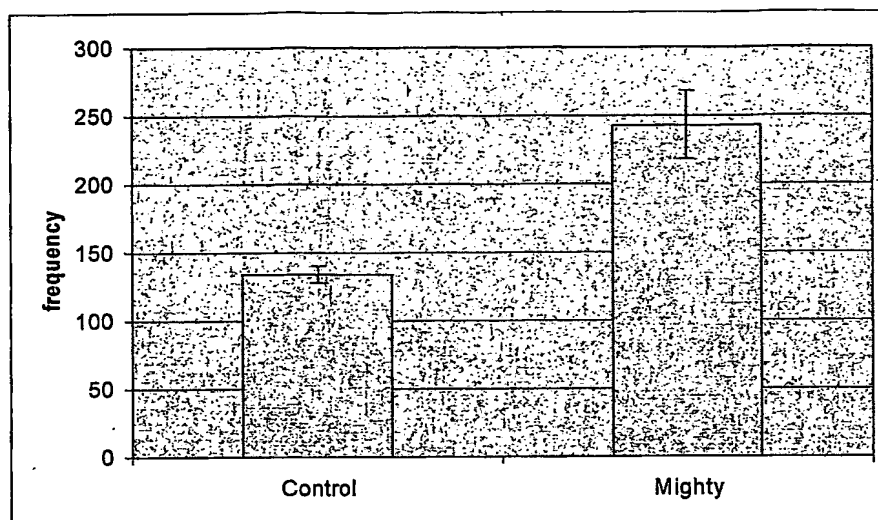


FIGURE 15

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Luciferase Activity of the 1kb mighty promoter in different cell lines

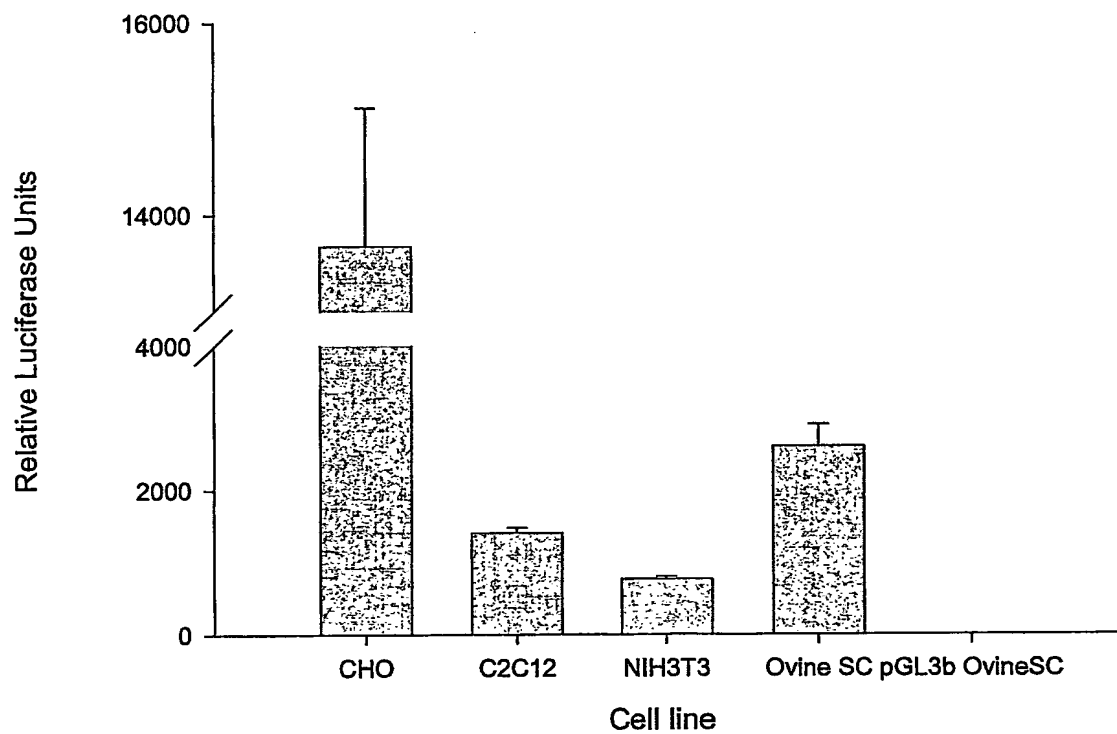


FIGURE 16A

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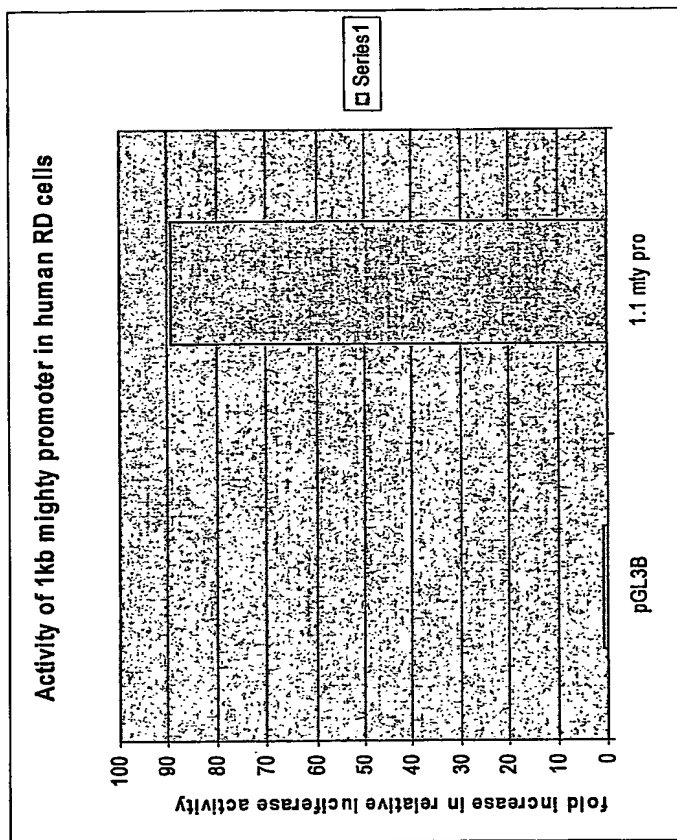
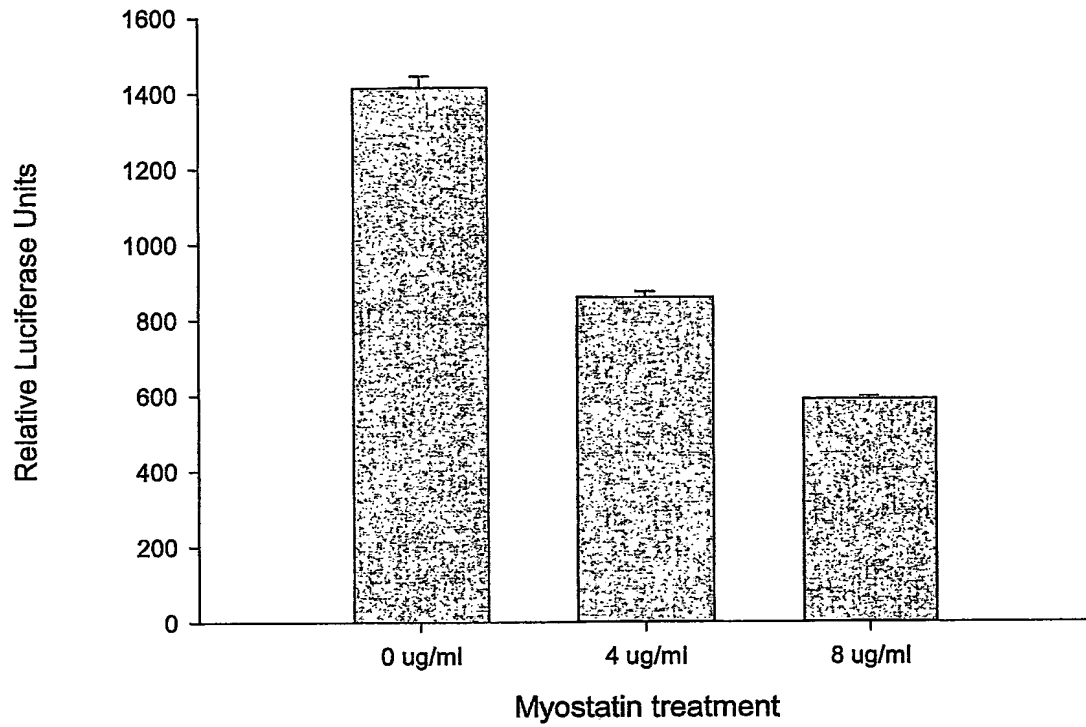


FIGURE 16B

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Luciferase Activity of the 1kb mighty promoter in response
to increasing myostatin concentrations

**FIGURE 17**

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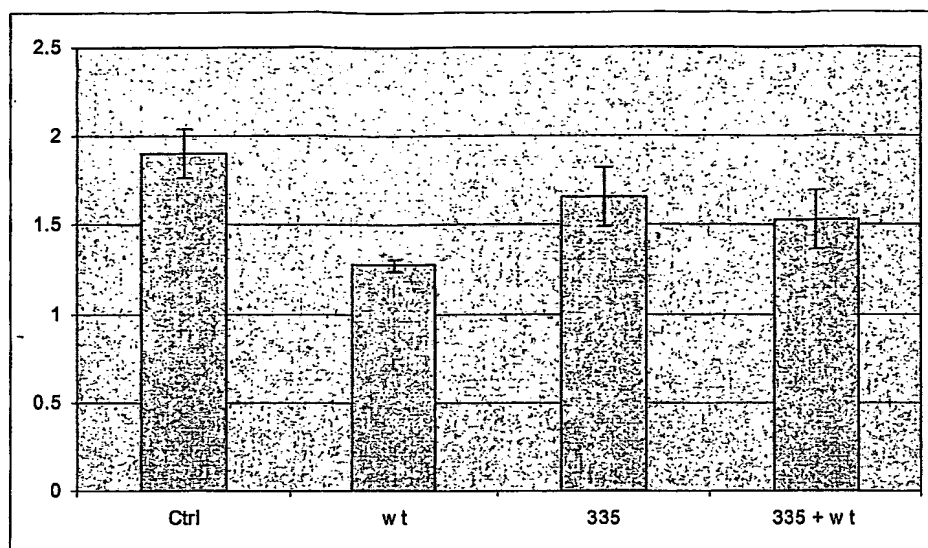
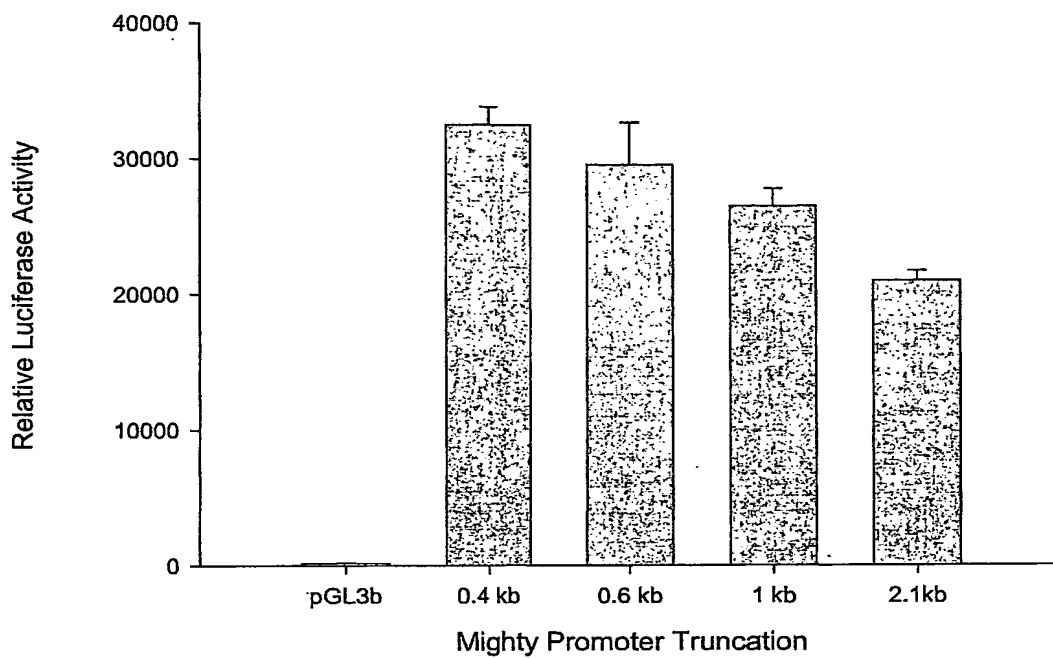
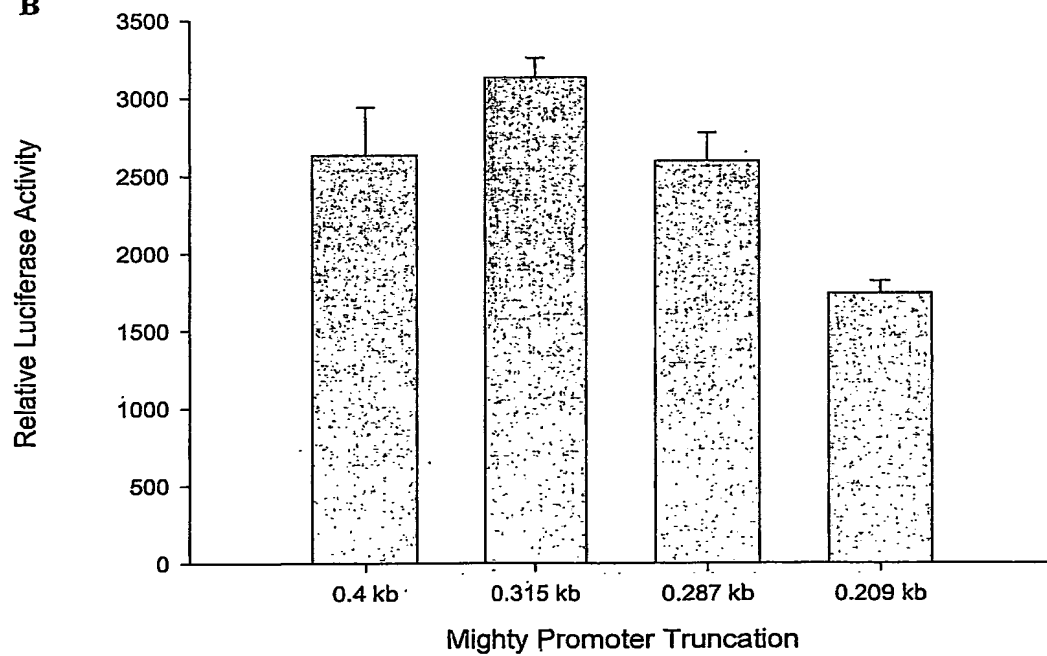


FIGURE 18

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A Mighty Promoter Truncations Normalised to beta-Gal Activity**B****FIGURE 19**

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FIGURE 20

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